



UNITED STATES PATENT AND TRADEMARK OFFICE

54

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,826	12/28/2000	John Alson Hicks III	BS00-343	5202

38516 7590 03/23/2005
SCOTT P. ZIMMERMAN, PLLC
PO BOX 3822
CARY, NC 27519

EXAMINER

DEMICO, MATTHEW R

ART UNIT	PAPER NUMBER
----------	--------------

2611

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,826

Applicant(s)

HICKS ET AL.

Examiner

Matthew R Demicco

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 0200 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20030103</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4-5, 8-9, 12, 15-16, 17-20, 25-31, 38-39 and 41 are rejected under 35

U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,732,366 to Russo.

Regarding Claim 1, Russo discloses a system for multimedia on demand (Col. 3, Lines 9-30), the system comprising a mass storage device (See Figure 2, 110) adapted to receive and store a multimedia content item (Col. 7, Lines 47 – Col. 8, Line 41), a processor (150 and Col. 9, Lines 35-39) coupled to the mass storage device and a memory (158) coupled to the processor. The memory stores a multimedia-on-demand data table that includes a multimedia identifier field (Col. 9, Lines 62-67) with a multimedia content identifier (a list of selections that have been recorded). This reads on the claimed multimedia content identifier corresponding to a multimedia content item stored on the mass storage device. Further disclosed is storing a multimedia content usage indicator field (Col. 10, Lines 33-39) that stores a multimedia content usage indicator associated with the multimedia content item stored on the storage device (i.e.: which programs stored on the storage device have been viewed). Russo further discloses that the system automatically downloads and stores (Col. 10, Lines 14-20) multimedia content items and periodically transmits the usage data to the program provider (Col. 10, Lines 32-53). Further it is inherent that such a microprocessor-based system would execute instructions in order to perform such operations. This reads on the claimed multimedia-on-demand instructions executed by the processor including instructions to automatically receive the multimedia content item and send a multimedia-on-demand usage message based at least in part on the content usage indicator.

Regarding Claim 4, Russo discloses as system as stated above in Claim 1, wherein the usage data identifies programs that were actually viewed (Col. 5, Lines 12-15) by the user's television (Col. 8, Lines 48-52). This reads on the claimed content usage

indicator being based in part on whether the multimedia content item associated with the usage indicator was read from the mass storage device and sent to an information appliance (television) for playback.

Regarding Claim 5, Russo discloses a system as stated above in Claim 1, wherein the system tracks how much of a piece of content a viewer consumes in order to automatically restart from that point at a later time (Col. 5, Lines 24-31). This reads on the claimed content usage indicator being adapted to indicate whether a content item was at least in part sent to an information appliance for playback.

Regarding Claim 8-9, Russo discloses a system as stated above in Claim 1, wherein the program provider is informed as to which programs were selected for viewing (Col. 10, Lines 33-53). The identification of these programs reads on the claimed data corresponding to the multimedia content identifier and the fact they were selected for viewing reads on the claimed data corresponding to the multimedia content usage indicator.

Regarding Claim 12, Russo discloses a system as stated above in Claim 1, further comprising a data switch (See Figure 2, 108) coupled to the mass storage device (110).

Regarding Claim 15, Russo discloses a system as stated above in Claim 1, wherein the multimedia content item may be video programming or audio (Col. 3, Lines 51-55) such as a movie (Col. 5, Lines 3-7).

Regarding Claim 16, Russo discloses a system as stated above in Claim 1, further comprising an input/output port coupled to the mass storage device (See Figure 2, 120) to communicate with a multimedia recording device (Col. 8, Lines 42-65).

Regarding Claim 17, see Claim 1 above. Russo further discloses that the system is adapted to receive and store a plurality of content items (Col. 5, Lines 3-8 and Col. 9, Lines 62-67). As stated above in Claim 1, a multimedia-on-demand data table includes multimedia content usage records that each include a content usage indicator field. It is implicit in such a system that stores a plurality of content items that there be usage records for each item that has been viewed.

Regarding Claim 18, see Claim 1 above.

Regarding Claim 19, Russo discloses a system as stated above in Claim 17, wherein the multimedia content indicator identifies programs that have been watched substantially in their entirety as stated above. This reads on the claimed content usage indicator consisting of a content played indicator.

Regarding Claim 20, Russo discloses a system as stated above in Claim 17, wherein the multimedia content usage message is sent to a multimedia-on-demand service provider (Col. 10, Lines 33-53).

Regarding Claim 25, Russo discloses a system as stated above in Claim 17, wherein the instructions include instructions to receive the plurality of content items from a service provider as stated above, the service provider consisting of cable television, satellite and over-air broadcasting (Col. 8, Lines 22-26).

Regarding Claim 26, see Claim 1 above. In such a method that maintains a list of available programming to be watched as stated above, it is inherent that the list would have to be updated when new programming arrives in order to present that programming

to the user for selection. This reads on the claimed modifying the data table to include the first multimedia content item identifier corresponding to the content item.

Regarding Claim 27, Russo discloses a method as stated above in Claim 26, wherein the user is operable to select a program to be viewed (Col. 11, Lines 2-6). This reads on the claimed receiving a multimedia content item usage instruction (play command) related to the first content item. The item is subsequently retrieved from the mass storage device for playback on the user's television (Col. 8, Lines 42-52). This reads on the claimed directing usage of the first multimedia content item based at least in part on the item usage instruction (play command). As stated above, once the user has viewed the program substantially in its entirety, a usage indicator is updated and ultimately sent to the service provider for billing purposes. This reads on the claimed updating the data table based at least in part on the content item usage instruction.

Regarding Claim 28, Russo discloses a method as stated above in Claim 27. Russo further discloses that the usage instruction is an instruction to playback the multimedia content item as part of a viewing transaction as stated above in Claim 27.

Regarding Claim 29-30, see Claim 1 above.

Regarding Claim 31, see Claim 19 above.

Regarding Claim 38, see Claims 1 and 17 above. Russo further discloses that the program provider makes a decision about which programs to be stored at the subscriber site (Col. 10, Lines 9-12) based on what the user has previously viewed (Col. 10, Lines 14-20). This reads on the claimed automatically sending (from the service provider) a plurality of content items based at least in part on a subscriber profile. Further, as stated

above, the usage report is sent to the service provider. This reads on the claimed receiving (at the service provider) the usage report.

Regarding Claim 39, Russo discloses a method as stated above in Claim 38. As stated above, each item has an associated multimedia content item identifier. Further, it is inherent that each item that is stored on the mass storage medium must have a storage position identifier (e.g.: an inode or file allocation table entry) in order for the file system to properly locate and retrieve the stored data.

Regarding Claim 41, see Claims 1 and 38 above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3, 21-22 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo in view of U.S. Patent No. 5,262,875 to Mincer et al.

Regarding Claims 2 and 3, Russo discloses a system as stated above in Claim 1, wherein multimedia content items are written to the mass storage device. What is not disclosed, however, are instructions to receive the multimedia content item at a transmission rate that is less than a real time transmission rate. Mincer discloses a video file server for storing content from a network to broadcast to viewing stations (Col. 2, Lines 43-50) wherein audio/video programming information is transmitted in less than

Art Unit: 2611

real time to the server for storage (Col. 3, Lines 7-14). Mincer is evidence that one of ordinary skill in the art would appreciate the ability to retrieve video content at a video server at rates lower than real time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the less than real time transmission rate of Mincer in order to conserve costly bandwidth when high data rates are not necessary.

Regarding Claims 21-22, see Claim 2 above. The transmission rate that is less than a real time transmission rate (i.e.: the data rate required to view the program without interruption) reads on the claimed transmission rate that is different from a playback rate of the content item.

Regarding Claim 35, see Claim 22 above.

Regarding Claim 36, see Claims 1, 2 and 23 above.

Regarding Claim 37, see Claim 26 above.

7. Claims 6-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo in view of U.S. Patent No. 6,141,488 to Knudson et al.

Regarding Claims 6 and 7, Russo discloses a system as stated above in Claim 1. Russo further discloses that content may be recorded onto a removable videotape (Col. 8, Lines 53-58). What is not disclosed, however, is that the usage indicator is based at least in part on whether the content item associated with the usage indicator was read from the mass storage device and sent to an information appliance for non-volatile recording of the item. Knudson discloses a system for recording television programming (Col. 6, Lines

51-53) including pay programming (Col. 9, Lines 25-26) and copy protected programming (Col. 9, Lines 63-66). The system of Knudson differentiates between the playing back and the recording of such programming and subsequently charges the user a different amount based on the determination (Col. 10, Lines 10-33). An order message is transmitted and processed by the television distribution facility (Col. 10, Lines 20-23). This message reads on the claimed usage indicator, based in part on whether the content item was sent to an information appliance (VCR) for non-volatile recording of the item. In combination with Russo, Knudson discloses reading the content item from the mass storage device for recording to the removable videotape at an additional cost. Knudson is evidence that one of ordinary skill in the art would appreciate the ability to monitor the type of content usage and charge according to the nature of the usage (playback or recording of content). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the levels of usage of Knudson in order to charge different levels of fees for the rights to view or record a program in order to cover appropriate royalties associated therewith.

Regarding Claims 10-11, Russo discloses a system as stated above in Claim 1. What is not disclosed, however, is that the usage message includes playback or purchase cost data associated with the usage data. Knudson disclose a system for recording television programming (Col. 6, Lines 51-53) including pay programming (Col. 9, Lines 25-26) and copy protected programming (Col. 9, Lines 63-66). The system of Knudson differentiates between the playing back and the recording (purchasing) of such programming and subsequently charges the user a different amount based on the

determination (Col. 10, Lines 10-33). An order message is transmitted and processed by the television distribution facility (Col. 10, Lines 20-23). In this system, the user is billed based on the level of service they select. Therefore, it is inherent that data associated with that cost or level of service must be transmitted to the service provider for such billing. This reads on the claimed usage message including playback and purchase cost data associated with the usage indicator. Knudson is evidence that one of ordinary skill in the art would appreciate the ability to transmit cost data to the service provider for billing based on different levels of service. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the usage message including cost data of Knudson in order to charge different levels of fees for the rights to view (playback) or record (purchase) a program in order to cover appropriate royalties associated therewith.

8. Claims 13-14 and 43-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo in view of U.S. Patent No. 5,883,677 to Hofmann.

Regarding Claim 13, Russo discloses a system as stated above in Claim 12, wherein a broadband communication link (102) is coupled to the data switch (Col. 7, Lines 15-21). What is not disclosed, however, is that there are a plurality of broadband links coupled to the switch. Hofmann discloses a system for receiving broadband services (Col. 3, Lines 20-60) delivered by a plurality of broadband communication links (See Figure 1 and Col. 4, Lines 49-50). Hofmann is evidence that one of ordinary skill in the art would appreciate the ability to receive video data from a plurality of different

broadband communication links. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the plurality of broadband links of Hofmann in order to allow a user to transparently receive and view content from diverse networks through a single device with ease.

Regarding Claim 14, Russo in view of Hofmann disclose a system as stated above in Claim 13. Further, it is implicit that such a user terminal in a broadband distribution system would be just one of many subscribers. This reads on the claimed plurality of information appliances, each being coupled to the broadband communication link.

Regarding Claim 43, Russo discloses an apparatus for selecting multimedia on demand as stated above, comprising a data switch interface (See Figure 2, Tuner 104) coupled to a switch port of a data switch (108 and Col. 7, Lines 39-41), the switch interface selecting and receiving digital information (Col. 7, Lines 41-46). Further disclosed is a processor (150) for controlling selection of information via the data switch interface and processing logic (118) for processing the received digital information for output (Col. 8, Lines 48-52). What is not disclosed, however, is that data is received from a plurality of multimedia sources. Hofmann discloses a system s stated above with a plurality of broadband communication links (See Figure 1 and Col. 4, Lines 49-50).

Hofmann is evidence that one of ordinary skill in the art would appreciate the ability to receive video data from a plurality of different broadband communication links.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the plurality of broadband

links of Hofmann in order to allow a user to transparently receive and view content from diverse networks through a single device with ease.

Regarding Claim 44, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses that the processing logic (118) comprises a digital-to-analog converter. This reads on the claimed decoder logic that converts digital information.

Regarding Claims 45-46, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses an IR receiver (162) for communicating with a remote control for the purposes of user control (Col. 9, Lines 44-45). What is not disclosed, however, is a radio frequency receiver that receives radio signals. Official Notice is hereby taken that it is well known in the art to use RF signals for a remote control instead of IR signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use an RF receive for receiving radio signals to control the program selection instead of IR in a situation where line of sight to the receiver is not available.

Regarding Claim 47, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses a system wherein the processing logic comprises decryption logic (114) coupled to the data switch interface that decrypts the digital information received from the data switch (Col. 10, Lines 21-32).

Regarding Claims 48 and 51, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses that that the switch receives and routes digital compressed information. Russo, however, does not disclose that the data switch

interface comprise an Ethernet interface that provides an interface to an Ethernet data switch. Official Notice is hereby taken that it is well known in the art to use Ethernet to transfer digital information between devices. Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to use an Ethernet interface and switch to transport data between the tuner(s) (104) and the routing switch (108) in order to make use of an existing network infrastructure or use a well known and widely accepted data transport standard. This Ethernet connection further reads on the claimed interface port coupled to the switch via a shared communication link.

Regarding Claim 49, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses an RF receiver (142) that receives radio signals (Col. 9, Lines 8-16).

Regarding Claim 50, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses that the data switch interface (104) is coupled to the switch port via a dedicated communication link (106).

Regarding Claim 52, Russo in view of Hofmann disclose a system as stated above in Claim 43. Russo further discloses a television display for displaying the output from the processing logic as stated above.

9. Claims 23-24, 32-34, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo.

Regarding Claim 23-24, Russo discloses a system as stated above in Claim 17.

What is not disclosed, however, is receiving a portion of the content item that is less than

the entirety of the item, at a transmission rate different from the playback rate and making a determination, based at least in part on the transmission rate and playback rate, that continuous playback of the entirety of the item can begin prior to the receipt of the entirety of the item. Official Notice is hereby taken that it is notoriously well known in the art that a media file may be played back prior to completion of the transfer provided the data will be received before playback reaches a point where the data is incomplete when the transfer is slower than the real-time playback data rate. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Russo with the incomplete file playback of the well-known prior art in order to allow a user to begin watching media content without having to wait for long periods of time for the entire transfer to be complete.

Regarding Claim 32-34, Russo discloses a method as stated above in Claim 26. Further, as stated above in Claim 17, Russo discloses receiving a plurality of multimedia content items. This reads on the claimed automatically receiving and storing a second content item. As stated above, it is inherent that the data table (list of stored content) must be updated to include the newly downloaded items in order for the user to see and access them. What is not disclosed, however, is that the second multimedia content item replaces the first, including deleting the first item and deleting its identifier. Official Notice is hereby taken that it is well known in the art to replace a first stored item with a second by deleting it. Further, it is obvious that upon deleting an item, its record would be removed from the list of programming available to the user on the storage medium since the item is no longer available. Therefore, it would have been obvious to one having ordinary skill

Art Unit: 2611

in the art at the time the invention was made to modify the method of Russo with the replacement of content of the well-known prior art in order to allow a newer version of content to be received or to enable the receiving of new content by deleting older content in order to free up available storage space.

Regarding Claim 40, Russo discloses a method as stated above in Claim 39. As stated above, a plurality of multimedia content items may be sent to the user's storage device. This reads on the claimed sending a first item having an item identifier and a storage position and subsequently seconding a second item having a second identifier. As stated above in Claim 32, a second content item could replace a first content item. This reads on the claimed second item having the item storage position (location on disk) as the first multimedia content item.

Regarding Claim 42, see Claims 39 and 40 above.

Art Unit: 2611

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 4,949,187 to Cohen discloses a video system for home viewers to download movies in a digital format and store them locally for later playback, further comprising an accounting system with royalty payments with local account information for billing based on usage.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew R Demicco whose telephone number is (703) 305-8155. The examiner can normally be reached on Mon-Fri, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



mrd
March 18, 2005


CHRIS GRANT
PRIMARY EXAMINER